

## **From the Director's Desk**



NIOSH focuses on transferring research to effective prevention practices through the new Research to Practice (r2p) initiative.

## **World Health Day**

NIOSH activities surrounding World Health Day's theme—"Road Safety is No Accident."

## **NIOSH Part of Interagency Team Honored by U.S. Public Health Service**

NIOSH researchers recognized for work in preventing carbon monoxide poisonings on and around recreational boats.

## **Department of Homeland Security Adopts three NIOSH standards**

First DHS standards for personal protective equipment used by emergency responders.

## **U.S. Public Health Service Engineer of the Year**

NIOSH researcher Scott Earnest receives prestigious honor.

## **Dedication of the Derek E. Dunn Conference Room**

NIOSH Director's Conference Room in Washington, D.C. dedicated in memory of Captain Dunn.

## **MMWR: Silicosis in Dental Laboratory Technicians**

New report warns of this potential risk and makes recommendations for preventing exposure.

## **NIOSH Certifies First Air-Purifying Respirators for Protection Against CBRN Exposures**

Air-purifying respirators from two companies are designated NIOSH certified for protecting emergency responders from CBRN exposures.

## **Wisconsin Teacher Wins NIOSH/ACTE Award**

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## From the Director's Desk

**Research to Practice (r2p)** is a new NIOSH initiative focused on the transfer and translation of research findings, technologies, and information into highly effective prevention services and products which are adopted in the workplace. The goal of **r2p** is to reduce illness and injury by increasing workplace use of effective NIOSH and NIOSH-funded research findings. In order to achieve this, NIOSH is continuing to work with our partners to focus our research on ways to develop effective products, to translate research findings into practice, to target dissemination efforts, and to evaluate and demonstrate the effectiveness of these efforts in improving worker health and safety.

Several recent NIOSH successes exemplify the types of activities the new r2p initiative is designed to promote and enhance:

- In collaboration with manufacturers, labor and industry, NIOSH developed a new personal dust monitor (PDM) for assessing coal miners' exposure to coal dust in underground coal mines. The first advancement in more than 30 years for monitoring exposures, the PDM provides real-time exposure data during a work shift. It warns of potential over-exposures in time for mine operators to reduce exposures that might lead over time to development of coal workers' pneumoconiosis or "black lung," a debilitating lung disease that caused 14,000 deaths between 1991 and 2000. NIOSH plans to conduct additional testing this year to verify its performance in a mine environment in collaboration with mine operators, miners, MSHA and the device developer Rupprecht & Patashnick Co., Inc. NIOSH contact: Jon Volkwein [JVolkwein@cdc.gov](mailto:JVolkwein@cdc.gov).
- Through a simple color change, a NIOSH-developed hand wipe method quickly and easily detects the presence of lead on both the skin and on surfaces in industries where lead is produced or used. This alert enables employers to take timely action to reduce lead exposures in the workplace and to prevent the risk of an employee inadvertently contaminating his or her home with lead dust on clothing, skin, or hair. Through this novel technology, lead exposure can be reduced for more than 10,000 workers and 900,000 children in the United States. NIOSH has patented, commercially licensed, and disseminated information on this method. NIOSH contact: Eric Esswein at [eesswein@cdc.gov](mailto:eesswein@cdc.gov).
- NIOSH developed an innovation that provides the basis for a new, commercially available do-it-yourself kit to detect the mold *Stachybotrys chartarum*. *S. chartarum* is a toxigenic mold commonly found in chronically water-damaged buildings. Determining if a building is contaminated with *S. chartarum* has been difficult due to the lack of a good detection device. The NIOSH-developed innovation is a species-specific monoclonal antibody that is being used as a diagnostic reagent in this novel technology kit. This kit provides building inspectors, industrial hygienists and homeowners with a simple tool to detect the mold in less than 5 minutes. NIOSH contact: Detlef Schmechel at [zvf9@cdc.gov](mailto:zvf9@cdc.gov).
- In partnership with an engineering firm, NIOSH in 2003 helped to produce a detailed, easy-to-read booklet recommending and describing engineering measures on commercial crab fishing vessels to prevent injuries in this highly hazardous industry. More than 3,000 copies of the booklet have been distributed in the U.S. and abroad. The recommendations in the booklet resulted from NIOSH's partnerships with many stakeholders to develop practical interventions that address hazards posed by machinery, fishing equipment, and physical design and layout of fishing vessels. NIOSH contact: Brad Husberg at [bjh9@cdc.gov](mailto:bjh9@cdc.gov).

Historically, NIOSH has been a leader in applying research into workplace solutions that reduce injury and illness. Now, as our mission grows increasingly complex and intensive, we are challenged to work more efficiently and effectively with our partners, to apply r2p practices at every turn, and to evaluate their effectiveness so that our best practices keep getting more focused to serve the needs of our customers. To learn more about the r2p initiative and for more examples of r2p, visit <http://www.cdc.gov/niosh/r2p>. NIOSH contact: DeLon Hull at [dhull@cdc.gov](mailto:dhull@cdc.gov)

## World Health Day

April 7 marks World Health Day, an annual event marking the establishment of the World Health Organization (WHO). This year's theme is "Road Safety is No Accident." Roadway crashes are the leading cause of occupational fatalities in the United States, representing 22% of all workplace deaths. NIOSH, in collaboration with other agencies within the U.S. Department of Health and Human Services, the U.S. Department of Transportation, the U.S. Department of State, the National Transportation Safety Board, the Peace Corps, numerous non-profit organizations, and the international community, have been active in planning several of the World Health Day activities.



- On April 2, the Morbidity and Mortality Weekly Report (MMWR) will feature two articles on road safety from NIOSH and the National Center for Injury Prevention and Control (CDC) and a Notice to Readers about World Health Day.
- On April 7, NIOSH will release two fact sheets that day which address work-related roadway crashes. The fact sheets will be available on the NIOSH home page, <http://www.cdc.gov/niosh>.
- On April 12, in celebration of Health in the Americas Week, NIOSH will deliver the opening remarks at the Pan American Health Organization during an event focused on occupational road safety.

More information on World Health Day, including a calendar of events worldwide, can be found on the WHO's Web site <http://www.who.int/world-health-day/2004/en>. NIOSH resources related to the prevention of motor vehicle injuries are available at <http://www.cdc.gov/niosh/injury/traumamv.html>.

## NIOSH Part of Interagency Team Honored by U.S. Public Health Service

An interagency team of researchers from NIOSH, the Department of the Interior, the National Park Service, and the U.S. Coast Guard was awarded an Outstanding Unit Citation and a Special Service Award by the U.S. Public Health Service. The team was recognized for their work in preventing life-threatening carbon monoxide (CO) poisonings on and around recreational watercraft. Analyzing data for the period 1990-2003, the team identified more than 500 CO poisonings occurring around recreational boats. In response, NIOSH researchers evaluated engineering controls for preventing recreational boat-related CO poisonings and focused their work on the performance of recently developed exhaust stacks on houseboat gasoline-powered generators. Prior to development of the exhaust stack, most houseboats exhausted their generators at water level on the rear or side of the boat, posing risks for boaters and employees who work with houseboats at some Park Service sites. NIOSH studies have shown rear and side exhausted generators produce hazardous CO concentrations near the stern of the boat, and the generator exhaust stack can reduce the CO exposures by over 99%. As a result of these findings, at least two houseboat manufacturers and several houseboat rental companies now install exhaust stacks on their houseboat generators. More information on preventing CO poisonings on houseboats and other recreational boats can be found at the following Web site <http://safetynet.smis.doi.gov/COhouseboats.htm>.

## Department of Homeland Security Adopts three NIOSH standards

In February, the U.S. Department of Homeland Security (DHS) adopted three NIOSH criteria for testing and certifying respirators for protection against chemical, biological, radiological, and nuclear (CBRN) exposures. NIOSH uses the criteria to test self-contained breathing apparatus, air-purifying respirators and escape respirators used by emergency responders against CBRN exposures. These are the first DHS standards regarding personal protective equipment for emergency responders against CBRN exposures. The standards are used to assist state and local offices in making procurement related decisions related to emergency responder equipment. More information appears at <http://www.dhs.gov/dhspublic/display?content=3301>.



## U.S. Public Health Service Engineer of the Year

NIOSH On February 27, 2004 at a U.S. Public Health Service ceremony in Bethesda, Maryland, Commander Scott Earnest was awarded the 2004 PHS Engineer of the Year Award by the Chief Engineer, Rear Admiral Robert Williams. Scott had previously received the 2004 CDC Engineer of the Year Award and was also previously recognized as one of the 2004 Top Ten Federal Engineers of the Year by the National Society of Professional Engineers. Scott is an industrial engineer with NIOSH's Division of Applied Research and Technology.



*CDR Scott Earnest (left) receives the PHS Engineer of the Year Award from RADM Robert Williams, Chief Engineer of the US PHS.*

## Dedication of the Derek E. Dunn Conference Room

On March 9, the NIOSH Office of the Director's Conference Room was dedicated in memory of Captain Derek Dunn. Captain Dunn served as the NIOSH Acting Associate Director for Science and was a beloved member of the NIOSH family.

## MMWR: Silicosis in Dental Laboratory Technicians

An article by NIOSH and state colleagues in the March 12, 2004 issue of CDC's *Morbidity and Mortality Weekly Report* (MMWR) warns that dental laboratory technicians are at potential risk of silicosis, and makes recommendations for reducing the risk. While crystalline silica exposure and silicosis is most commonly found in mining and sandblasting, dental laboratory technicians use materials and processes that may increase their exposure. Nine confirmed cases of silicosis among dental laboratory employees between 1994 and 2000 were identified through the Sentinel Event Notification Systems for Occupational Risks (SENSOR) surveillance program and state based surveillance programs using the SENSOR surveillance model. The full report is accessible at <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5309a3.htm>.



## NIOSH Certifies First Air-Purifying Respirators for Protection Against CBRN Exposures

NIOSH has issued the first two certifications for air-purifying respirators intended to protect emergency responders from chemical, biological, radiological, and nuclear (CBRN) exposures. In March, NIOSH certified the MSA Millennium® APR, manufactured by Mine Safety Appliances, and the 3M FR-M40, manufactured by 3M. This designation signifies that the respirators are expected to protect emergency responders from CBRN exposures and allows the manufactures to label the devices as NIOSH certified for occupational use by emergency responders. As a standard practice, air-purifying respirators should not be used in atmospheres containing concentrations of contaminants that are immediately dangerous to life and health or in oxygen-deficient atmospheres. The Web site <http://www.cdc.gov/niosh/npptl/cbrnaprcheck.html> will be updated as additional air-purifying respirators become NIOSH certified.

## Wisconsin Teacher Wins NIOSH/ACTE Award

Thomas Bates, a career and technical teacher at Appleton North High School in Appleton, Wisconsin, is the winner of the NIOSH and the Association of Career and Technical Education Annual Teachers National Occupational Safety and Health Competition. The award demonstrates excellence in promoting occupational safety and health in school laboratories. Mr. Bates was recognized for his 10-part program which includes safety and risk management, personal protective equipment, fire safety, and housekeeping procedures. The program is being used throughout the Appleton School District and as an introduction to the Technology Safety Plan.

## News From Our Partners

### Release of FBI Monograph on Workplace Violence

On March 1, the Federal Bureau of Investigation (FBI) released a monograph entitled *Workplace Violence: Issues in Response*. The monograph resulted from a June 2002 symposium hosted by the FBI's National Center for the Analysis of Violent Crime entitled "Violence in the Workplace." Representatives from NIOSH, other law enforcement organizations, private industry, government, law, labor, professional organizations, victim services, academic, and mental health agencies joined the FBI to share their expertise on this important issue. A printable version of the monograph is available at <http://www.fbi.gov/publications/violence.pdf>.

## Web Sightings

### Worker Notification Web Page

A new NIOSH Web site, <http://www.cdc.gov/niosh/pgms/worknotify>, provides information about NIOSH's worker notification program and access to findings from studies under the program. "Worker notification" is a term used to describe the transmission of the overall research results of epidemiologic studies to the workers in those studies. The notification materials are indexed by work group and work exposure.



### Spirometry Training Course Topic Page

Interested in learning about the NIOSH approved spirometry training course? A new NIOSH topic page provides information on the course content and certification, U.S. and Mexican locations where courses are offered, and how to become a course faculty member or sponsor. The Web site can be accessed at <http://www.cdc.gov/niosh/topics/spirometry>.

### Flight Crew Research Program at NIOSH

This new topic page, <http://www.cdc.gov/niosh/topics/flightcrew>, links to NIOSH Health Hazard Evaluations and abstracts related to the Flight Crew Research Program. The program studies the health effects of exposures in the aircraft cabin environment on flight personnel.





## Publications

### ***Report from the 1999 National Conference on Workplace Safety & Health Training - Putting the Pieces Together & Planning for the Challenges Ahead***

This is a summary report from the 1999 national conference addressing the needs and challenges of occupational safety and health (OSH) training. The report covers the ideas and views shared by the stakeholders and participants during plenary, panel and breakout sessions. The conference also addressed current policy, regulations, standards, and practices; and ways to develop and evaluate OSH training interventions. The full report, DHHS NIOSH Pub No (2004-132), is available by calling 1-800-35-NIOSH.

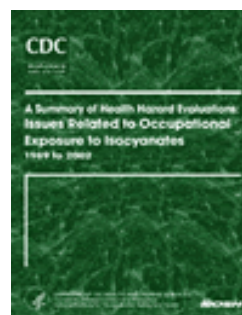
### ***Health Hazard Evaluations: Issues Related to Occupational Exposure to Fire Fighters 1990 to 2001***

This report summarizes 10 years of NIOSH Health Hazard Evaluations related to fire fighters. The evaluations are classified into five areas: safety-related, diesel exhaust exposure, forest fire fighting, chemical fires and communicable diseases. The report, DHHS NIOSH Pub No (2004-115), is available in print by calling 1-800-35-NIOSH or by downloading at <http://www.cdc.gov/niosh/docs/2004-115>.



### ***A Summary of Health Hazard Evaluations: Issues Related to Occupational Exposure to Isocyanates 1989 to 2002***

This report summarizes the 46 isocyanate-related Health Hazard Evaluations that NIOSH conducted over this 14 year period. The report provides background information on isocyanate exposure criteria, possible health effects, and NIOSH recommendations for reducing such exposures. The document, DHHS NIOSH Pub No (2004-116), is available at <http://www.cdc.gov/niosh/docs/2004-116>.



## **Mining Fact Sheets**

Copies of the following 2002 mining fact sheets are now available at <http://www.cdc.gov/niosh/mining/data/facts.html> or by calling 1-800-35-NIOSH.

- *Noncoal Contractor Mining Facts* - 2002 DHHS NIOSH Pub. No. (2004-129).
- *Coal Contractor Mining Facts* - 2002 DHHS NIOSH Pub. No. (2004-128).
- *Sand and Gravel Operator Mining Facts* – 2002 DHHS NIOSH Pub. No. (2004-127).
- *Stone Operator Mining Facts* – 2002 DHHS NIOSH Pub. No. (2004-126).
- *Nonmetal Operator Mining Facts* - 2002 DHHS NIOSH Pub. No. (2004-125).
- *Metal Operator Mining Facts* – 2002 DHHS NIOSH Pub. No. (2004-124).
- *Coal Operator Mining Facts* - 2002 DHHS NIOSH Pub. No. (2004-123).

## **NIOSH Alert for Young Workers Now Available in Spanish**

The NIOSH Alert Preventing Deaths, Injuries and Illnesses of Young Workers is now available in Spanish. The Alert identifies hazardous working areas and provides recommendations for youth to remain safe while working in those conditions. A downloadable copy of the Alert is available at <http://www.cdc.gov/spanish/niosh/docs/2003-128sp.html>.

## Upcoming Events

### Symposium on Silica: Sampling and Analysis

The "Symposium on Silica: Sampling and Analysis," sponsored by ASTM, will be held April 22-23, 2004 in Salt Lake City, Utah. NIOSH, the Occupational Safety and Health Administration, and the Mine Safety and Health Administration, along with the American Industrial Hygiene Association's Laboratory Quality Programs technical committees, and the National Institute for Standards and Technology will present their accomplishments in improving the quality of sampling and analytical procedures for determining occupational exposure to airborne silica-containing dusts. The Chairperson for the symposium is NIOSH Exposure Assessment Branch Chief Martin Harper. The final program and call for registrations can be accessed at [http://www.astm.org/SYMPOSIA/D22\\_Symp.htm](http://www.astm.org/SYMPOSIA/D22_Symp.htm).

### The Way We Work and Its Impact on Our Health

NIOSH is co-sponsoring a public policy forum and conference titled "The Way We Work and Its Impact on Our Health" in Los Angeles, California on April 22-23, 2004. The forum will bring together employers, workers, labor organizations, health care providers, policy makers and academia to identify solutions for reducing the harmful health outcomes of work-related stress. Information on the forum can be found at <http://www.workhealth.org/2004%20California%20Forum/first%20announcement.html>.

### Toxicology and Risk Assessment Conference

The 2004 Toxicology and Risk Assessment, co-sponsored by NIOSH, offers scientific workshops and sessions, and an evening poster session. An addition to this year's conference is a student poster competition. It will be held April 26-30, 2004 at the Marriott North, in West Chester (north of Cincinnati), Ohio. Additional information on registration, contacts, the scientific program and logistics are available at the following link <http://intranet.meti.mantech.com/2004TOXconference>.

### Impacts of Long Working Hours Will be Examined in an April Research Conference

NIOSH, the University of Maryland School of Nursing, and the U.S. Department of Justice are sponsoring the "Long Working Hours, Safety, and Health" Conference on April 29-30 in Baltimore, Maryland. Researchers from the U.S. and abroad will share the latest research findings on the potential effects of long working hours and extended working schedules have on occupational health, safety and well-being. The conference will serve as a first step in developing a strategic national research agenda to better understand, anticipate, and prevent potential adverse effects. In addition to the conference, two post-conference sessions have been added: "Long Working Hours In Health Care" and the "Workshop on Police Fatigue and Long Work Hours." More information about the conference and the new post-conference sessions can be found at <http://www.nursing.umaryland.edu/longworkhours>.

### 2<sup>nd</sup> International Symposium on Work Ability

The 2<sup>nd</sup> International Symposium on Work Ability is scheduled for October 18-20, 2004 in Verona, Italy. The Symposium is being organized by the Universities of Milano and Verona, the International Commission on Occupational Health (ICOH) Scientific Committee "Ageing and Work" and the International Ergonomics Association (IEA) Technical Committee "Ageing." Topics include ways to assess and promote work ability and the factors affecting the work ability of older workers. NIOSH is an institutional member of ICOH. For more information on the symposium, go to <http://www.cdc.gov/niosh/pdfs/workability-a.pdf>.

## Word of the Month

**Monoclonal antibody:** an antibody used to specifically detect the presence of a given virus, bacterium, mold or products thereof in laboratory tests. It is called monoclonal because it is produced by a single clone of white blood cells called B lymphocytes. For example, a monoclonal antibody called 9B4 is used to detect the presence of the mold *Stachybotrys chartarum* in environmental samples.

**NIOSH eNews is Brought to You By:**

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